

REVIEWS

Recent Bulletins of the State Geological and Natural History Survey of Connecticut*

The State Geological and Natural History Survey of Connecticut published in 1905 "A preliminary report on the Hymeniales of Connecticut," by Edward Albert White, and "The Ustilagineae or smuts of Connecticut," by George Perkins Clinton. In the latter part of 1908 there appeared notable continuations of the published results of the botanical survey of that state in "A preliminary report on the algae of the fresh waters of Connecticut" by Herbert William Conn and Lucia Washburn (Hazen) Webster, and "The bryophytes of Connecticut" by Alexander William Evans and George Elwood Nichols. The report on the fresh-water algae consists essentially of brief synopses of the classes and orders, keys to the genera and short descriptions of them, the names of the species found, and, with few exceptions, figures of all the species collected by the writers within the limits of the state. A few species are admitted on the authority of Hazen and of Setchell, and the names of a considerable number from the "Phycological notes of Isaac Holden," published by F. S. Collins in *Rhodora*, have been introduced in brackets. The Cyanophyceae and Characeae are included, but no attempt is made to treat the Diatomaceae. The treatment of the Characeae is, however, very inadequate, only one species and that an unnamed one being figured. The authors have evidently not made use of the monographs of T. F. Allen and of C. B. Robinson, in which Connecticut materials are mentioned. The authors appear to have devoted their attention largely to the Conjugatae. Under *Spirogyra*, *Zygnema*, *Closterium*, *Cosmarium*, *Staurastrum*, and *Micrasterias*, numerous species are listed and figured, but under genera like *Cladophora*, *Oedogonium*, and *Vaucheria*, which may reasonably be supposed to be well represented in Connecticut, the lists are confined to two or three species each. For the

* Conn, H. W., & Webster, L. W. A preliminary report on the algae of the fresh waters of Connecticut. *State Geol. and Nat. Hist. Surv. Conn. Bull.* 10: 1-78. *pl.* 1-44. 1908.

Evans, A. W., & Nichols, G. E. The bryophytes of Connecticut. *State Geol. and Nat. Hist. Surv. Conn. Bull.* 11: 1-203. 1908.

species, no descriptions or keys are given, and specific determinations, if they are to be made from the report at all, must be made from the figures. The keys, it is to be regretted, are often inadequate and sometimes positively misleading, as when under *Chara* it is asserted that "The stems are covered with a cortex," a statement that would result in excluding *Chara Schweinitzii* (*C. coronata* of most American authors), one of our commonest species. Many of the figures, especially, perhaps, those of the desmids, give a fair idea of the general habit and form of the organisms treated, but some of the others, like that of *Glocotrichia Pisum*, can scarcely be of service to the student, in the determination of the species, at least.

The bulletin on "The bryophytes of Connecticut" by Professor Evans and Mr. Nichols is a thoroughly scholarly and scientific paper and one that is likely to have much good influence in stimulating and aiding the study of the bryophytes in Connecticut and neighboring states. The catalogue of species is prefaced by a general introduction of thirty-seven pages, in which are discussed "General characteristics of the bryophytes", "History of bryology in Connecticut", "Distribution of the bryophytes in Connecticut according to environment", and "Economic value of the bryophytes". Under the head of distribution according to environment, the factors considered are latitude, character of substratum, intensity of light, and water supply. In the body of the catalogue are keys to the families, genera, and species, lists of the known Connecticut species, names of collectors, references to exsiccatae and to the principal literature, and statements as to the extra-limital distribution of the species. The general summary shows that 387 species of bryophytes are at present known to occur in Connecticut and that of these 12 belong to the Marchantiales, 92 to the Jungermanniales, 3 to the Anthocerotales, 31 to the Sphagnales, 2 to the Andreaeales, and 247 to the Bryales. Only about 18 per cent. of the species are peculiar to America. Over 62 per cent. are common to Europe and Asia, while, of the remainder, 16 per cent. have been found in Europe but not in Asia and 4 per cent. have been found in Asia but not in Europe. Misprints in this paper are few, but

on page 101 *Dicranum fulvum* is listed where *D. montanum* was evidently intended, as is apparent from the key. It is to be hoped that members of the Torrey Botanical Club will in the near future devote themselves to the study of the flora of the metropolitan district with the purpose of publishing a series of papers similar to "The bryophytes of Connecticut" in order to facilitate the study and ready identification of both the seed-bearing and seedless plants of the vicinity of New York City. Meanwhile, "The bryophytes of Connecticut" will prove almost as useful in New York and indeed along our whole North Atlantic seaboard as it will in Connecticut.

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PROCEEDINGS OF THE CLUB*

JANUARY 12, 1909

The first meeting of the Club for 1909 was held at the American Museum of Natural History, with President Rusby in the chair. There were ten members present.

After the reading and approval of the minutes for December 8, 1908, the resignations of the following members were presented and accepted: Miss Anna Murray Vail, Miss Henrietta E. Hooker, Mrs. John R. Delafield, Mr. C. C. Hanmer, and Mr. Albert Ruth.

This being the annual meeting of the Club, reports were presented by the treasurer, editor, chairman of the field committee, and the secretary. These were read, accepted, and placed on file.

The editor reported the completion of Volume 35 of the *Bulletin*, containing 608 pages and 40 plates. The only *Memoir* published during 1908 was "A Study of the Lactariae of the United States" by Dr. Gertrude S. Burlingham. This paper was issued in May as No. 1 of Volume 14 of the Club's *Memoirs*, and contained 109 pages and 15 half tone illustrations.

Mr. Charles Louis Pollard presented his report as chairman of the field committee up to the time of his resignation in August. Mr. George V. Nash, who acted as chairman for the remainder

* No meeting was held the last Wednesday in December.